

Devij, S.
09/388090

09/388090

FILE 'CAPLUS' ENTERED AT 15:05:00 ON 18 APR 2000

L1 2 SEA ABB=ON PLU=ON NGSP
L2 3344 SEA ABB=ON PLU=ON (NEISSER? OR N) (W) (GONORRH? OR
GONOCOCC?)
L3 7 SEA ABB=ON PLU=ON (L1 OR L2) (3A) (POLYPEPTIDE OR
POLYPROTEIN OR POLY(W) (PEPTIDE OR PROTEIN))
L4 16 SEA ABB=ON PLU=ON (L1 OR L2) (10A) (POLYPEPTIDE OR
POLYPROTEIN OR POLY(W) (PEPTIDE OR PROTEIN))
L5 16 SEA ABB=ON PLU=ON L3 OR L4

- key terms
Claim 37

L5 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 2000:161171 CAPLUS

DOCUMENT NUMBER: 132:212704

TITLE: **Neisseria gonorrhoeae**
polypeptides and nucleic acid sequences
for vaccines

INVENTOR(S): Jackson, W. James; Harris, Andrea M.

PATENT ASSIGNEE(S): Antex Biologics Inc., USA

SOURCE: PCT Int. Appl., 69 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000012133	A1	20000309	WO 1999-US20070	19990901
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 1998-98685 19980901

AB The invention discloses a **Neisseria gonorrhoeae**
polypeptide (NGSP), **polypeptides** derived
therefrom (NGSP-derived **polypeptides**),
nucleotide sequences encoding said **polypeptides**, and
antibodies that specifically bind the NGSP
polypeptide and/or NGSP-derived
polypeptides. Also disclosed are prophylactic or
therapeutic compns., including antigenic, preferably immunogenic
compns., e.g., vaccines, comprising NGSP
polypeptide and/or a NGSP-derived
polypeptide or antibodies thereto. The invention addnl.

Searcher : Shears 308-4994

discloses methods of inducing an immune response to *Neisseria* and *Neisseria* NGSP polypeptide and an NGSP-derived polypeptide in animals.

L5 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:632019 CAPLUS
DOCUMENT NUMBER: 131:333505
TITLE: Probing secretion and translocation of a .beta.-autotransporter using a reporter single-chain Fv as a cognate passenger domain
AUTHOR(S): Veiga, Esteban; De Lorenzo, Victor; Fernandez, Luis A.
CORPORATE SOURCE: Departamento de Biotecnologia Microbiana, Centro Nacional de Biotecnologia, Madrid, 28049, Spain
SOURCE: Mol. Microbiol. (1999), 33(6), 1232-1243
CODEN: MOMIEE; ISSN: 0950-382X
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The mechanism of protein secretion mediated by the .beta.-domain of the *Neisseria gonorrhoeae* IgA protease, a paradigm of a family of secreted polypeptides of Gram-neg. bacteria called autotransporters, has been examd. using a single-chain antibody (scFv) as a reporter passenger domain to monitor the translocation process. Fusion of a scFv to the .beta.-module of the IgA protease allowed us to investigate the passage of the chimeric protein through the periplasm, its insertion into the outer membrane and the movement of the N-terminal moiety towards the cell surface. As the binding activity of the scFv to its target antigen is entirely dependent on the formation of disulfide bonds, the relationship between secretion, folding and formation of S-S bridges could be analyzed in detail. In contrast to the current notion that only an unfolded N-passenger domain can be translocated through the .beta.-domain, our results show that the scFv is able to pass through the outer membrane, albeit at a threefold reduced level, in an active conformation with its disulfide bonds preformed in the periplasm through the action of the DsbA product. These data call for a re-evaluation of the prevailing model for secretion of the N-domain of autotransporters.

L5 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:210223 CAPLUS
DOCUMENT NUMBER: 131:2573
TITLE: The comp locus of *Neisseria gonorrhoeae* encodes a type IV prepilin that is dispensable for pilus biogenesis but essential for natural transformation
AUTHOR(S): Wolfgang, Matthew; Van Putten, Jos P. M.; Hayes, Stanley F.; Koomey, Michael
Searcher : Shears 308-4994

09/388090

CORPORATE SOURCE: Department of Microbiology and Immunology,
University of Michigan Medical School, Ann
Arbor, MI, 48109-0620, USA
SOURCE: Mol. Microbiol. (1999), 31(5), 1345-1357
CODEN: MOMIEE; ISSN: 0950-382X
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The expression of type IV pili (Tfp) by *Neisseria gonorrhoeae* has been shown to be essential for natural genetic transformation at the level of sequence-specific uptake of DNA. All previously characterized mutants defective in this step of transformation either lack Tfp or are altered in the expression of Tfp-assocd. properties, such as twitching motility, autoagglutination and the ability to bind to human epithelial cells. To examine the basis for this relationship, we identified potential genes encoding **polypeptides** sharing structural similarities to Pile, the Tfp subunit, within the *N. gonorrhoeae* genome sequence database. We found that disruption of one such gene, designated *comP* (for competence-assocd. prepilin), leads to a severe defect in the capacity to take up DNA in a sequence-specific manner, but does not alter Tfp biogenesis or expression of the Tfp-assocd. properties of autoagglutination, twitching motility and human epithelial cell adherence. Indirect evidence based on immunodetection suggests that *ComP* is expressed at very low levels relative to that of *Pile*. The process of DNA uptake in gonococci, therefore, is now known to require the expression of at least three distinct components: Tfp, the recently identified *PilT* protein and *ComP*.

L5 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:113576 CAPLUS
DOCUMENT NUMBER: 130:187171
TITLE: Cyclized polypeptide prodrugs
INVENTOR(S): Powell, Michael J.
PATENT ASSIGNEE(S): Boehringer Mannheim Corporation, USA
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9906072	A1	19990211	WO 1998-US15433	19980724
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

Searcher : Shears 308-4994

PRIORITY APPLN. INFO.: US 1997-54285 19970730

OTHER SOURCE(S): MARPAT 130:187171

AB Cyclized prodrugs of this invention are covalently cross-linked so as to inhibit their ability to perform the usual biol. or metabolic function of therapeutic benefit. Either the polypeptide backbone of the enzyme or the cross link itself contains a cleavable site. In an environment where the enzyme specific for the cleavable site is expressed, the cross-linked prodrug is released from its inhibited state and again becomes capable of exerting its therapeutic effect.

L5 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:83282 CAPLUS

DOCUMENT NUMBER: 130:277467

TITLE: Neisseria gonorrhoeae mutants altered in toxicity to human fallopian tubes and molecular characterization of the genetic locus involved

AUTHOR(S): Arvidson, Cindy Grove; Kirkpatrick, Risa; Witkamp, Manon T.; Larson, Jason A.; Schipper, Christel A.; Waldbeser, Lillian S.; O'Gaora, Peadar; Cooper, Morris; So, Magdalene

CORPORATE SOURCE: Department of Molecular Microbiology and Immunology, Oregon Health Sciences University, Portland, OR, 97201, USA

SOURCE: Infect. Immun. (1999), 67(2), 643-652
CODEN: INFIBR; ISSN: 0019-9567

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In an effort to identify potential cytotoxins expressed by Neisseria gonorrhoeae, we have identified a locus that, when mutated in the gonococcus, results in a significant increase in toxicity of the strain to human fallopian tube organ cultures (HFTOC). This locus, *gly1*, contains two open reading frames (ORFs) which are likely cotranscribed. ORF1 encodes a polypeptide of 17.8 kDa with a signal sequence that is recognized and processed in Escherichia coli and N. gonorrhoeae. The 15.6-kDa processed polypeptide has been obsd. in membrane fractions and filtered spent media from cultures of E. coli expressing *gly1* and in outer membrane prepns. of wildtype N. gonorrhoeae. The *gly1* locus is not essential for bacterial survival, and it does not play a detectable role in epithelial cell adhesion, invasion, or intracellular survival. However, a *gly1* null mutant causes much more damage to fallopian tube tissues than its isogenic wild-type parent. A strain complemented in trans for the *gly1* mutation showed a level of toxicity to HFTOC similar to the level elicited by the wild-type parent. Taken together, these results indicate an involvement of the *gly1* locus in the toxicity of N. gonorrhoeae to human fallopian tubes.

L5 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2000 ACS

Searcher : Shears 308-4994

09/388090

ACCESSION NUMBER: 1998:397229 CAPLUS
DOCUMENT NUMBER: 129:146676
TITLE: Expression of iron binding proteins and hemin
binding activity in the dental pathogen
Actinobacillus actinomycetemcomitans
AUTHOR(S): Graber, Katherine R.; Smoot, Laura M.; Actis,
Luis A.
CORPORATE SOURCE: Department of Microbiology, Miami University,
Oxford, OH, 45056, USA
SOURCE: FEMS Microbiol. Lett. (1998), 163(2), 135-142
CODEN: FMLED7; ISSN: 0378-1097
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Actinobacillus actinomycetemcomitans was found to express a
polypeptide immunol. related to the **Neisseria**
gonorrhoeae FbpA iron binding protein. In addn., the
expression of hitB and hitC homologs was detected by Northern blot
anal. This periodontal pathogen also expresses a polypeptide
homologous to the 31-kDa Haemophilus influenzae protein, which shows
amino acid sequence homol. with the FimA and YfeA proteins from
Streptococcus parasanguis and Yersinia pestis, resp. Both A.
actinomycetemcomitans protein homologs were located within the
periplasmic space, and their synthesis was regulated by the iron and
hemin concn. of the culture medium. Southern and Western blot anal.
together with mol. cloning revealed the presence of a Fur-like
repressor, which may control the iron regulation of gene expression
in this bacterium. Cultivation in the presence of hemin or Congo
red revealed the ability of this organism to bind hemin. This
binding activity was further confirmed by isolating Escherichia coli
DH5.alpha. clones that produced red and brown colonies on agar
plates contg. Congo red and hemin, resp., after transformation with
an A. actinomycetemcomitans gene library.

L5 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1997:359156 CAPLUS
DOCUMENT NUMBER: 127:78317
TITLE: Porin polypeptide contributes to surface charge
of gonococci
AUTHOR(S): Swanson, John; Dorward, David; Lubke, Lori; Kao,
David
CORPORATE SOURCE: Lab. of Microbial Struct. and Function, Natl.
Inst. of Health, Hamilton, MT, 59840, USA
SOURCE: J. Bacteriol. (1997), 179(11), 3541-3548
CODEN: JOBAAY; ISSN: 0021-9193
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Each strain of **Neisseria gonorrhoeae** elaborates
Searcher : Shears 308-4994

09/388090

a single porin polypeptide, with the porins expressed by different strains comprising two general classes, Por1A and Por1B. In the outer membrane, each porin mol. folds into 16 membrane-spanning .beta.-strands joined by top- and bottom-loop domains. Por1A and Por1B have similar membrane-spanning regions, but the eight surface-exposed top loops (I to VIII) differ in length and sequence. To det. whether porins, and esp. their top loop domains, contribute to bacterial cell surface charge, strain MS11 gonococci that were identical except for expressing a recombinant Por1A, Por1B, or mosaic Por1A-1B polypeptide were compared by whole-cell electrophoresis. These porin variants displayed different electrophoretic mobilities that correlated with the net nos. of charged amino acids within surface-exposed loops of their resp. porin polypeptides. The susceptibilities of porin variants to polyanionic sulfated polymers correlated roughly with gonococcal surface charge; those porin variants with diminished surface neg. showed increased sensitivity to the polyanionic sulfated compds. These observations indicate that porin polypeptides in situ contribute to the surface charge of gonococci, and they suggest that the bacterium's interactions with large sulfated compds. are thereby affected.

L5 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1993:100355 CAPLUS
DOCUMENT NUMBER: 118:100355
TITLE: Recombinant hybrid porin epitopes as vaccines
against Neisseria gonorrhoeae
INVENTOR(S): Goldstein, Neil; Tackney, Charles
PATENT ASSIGNEE(S): Imclone Systems Inc., USA
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9216643	A1	19921001	WO 1992-US2090	19920313
W: AU, CA, FI, HU, JP, KR, NO, RO, RU				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
CA 2105382	AA	19920915	CA 1992-2105382	19920313
CA 2105382	C	19990119		
AU 9217492	A1	19921021	AU 1992-17492	19920313
EP 575553	A1	19931229	EP 1992-910113	19920313
EP 575553	B1	19981216		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
JP 06507545	T2	19940901	JP 1992-509343	19920313
AT 174625	E	19990115	AT 1992-910113	19920313
Searcher : Shears 308-4994				

09/388090

ES 2127217	T3	19990416	ES 1992-910113	19920313
US 5547670	A	19960820	US 1993-124369	19930920
PRIORITY APPLN. INFO.:			US 1991-669528	19910314
			WO 1992-US2090	19920313

AB A chimeric (non)fusion polypeptide that is nontoxic to *Escherichia coli* comprises .gtoreq.1 antigenic porins selected from porin I.A (P.IA) and porin I.B (PI.B) of *N. gonorrhoeae* is provided. The chimeric polypeptide can be used as a vaccine against the serovar groups of *N. gonorrhoeae*. An *E. coli* expression plasmid pGC26 encoding chimeric GC26 consisting of 2 antigenic fragments selected from porins A and B, resp., was prepd. The GC26 was used to prep. anti-P.IA and -P.IB antibody.

L5 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1992:403172 CAPLUS

DOCUMENT NUMBER: 117:3172

TITLE: Endoglucanase A from *Cellulomonas fimi* in which the hinge sequence of human IgA1 is substituted for the linker connecting its two domains is hydrolyzed by IgA proteases from *Neisseria gonorrhoeae*

AUTHOR(S): Miller, Patricia B.; Shen, Hua; Gilkes, Neil R.; Kilburn, Douglas G.; Miller, Robert C., Jr.; Plaut, Andrew G.; Warren, R. Antony J.

CORPORATE SOURCE: Dep. Microbiol., Univ. British Columbia, Vancouver, BC, V6T 1Z3, Can.

SOURCE: FEMS Microbiol. Lett. (1992), 92(2), 199-203
CODEN: FMLED7; ISSN: 0378-1097

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The hinge in IgA1 and the linker in endoglucanase A (CenA) are quite similar. The IgA1 hinge is 18 amino acids long and contains only proline, threonine and serine. The linker in CenA is 27 amino acids long and contains only proline, threonine and a single serine. IgA proteases from *N. gonorrhoeae* cleave Pro-Ser and Pro-Thr bonds within the IgA1 hinge sequence, but they do not attack CenA. When the linker sequence of CenA is replaced with the hinge sequence of IgA1, the hybrid **polypeptide** is susceptible to the *N. gonorrhoeae* proteases. It is cleaved within the hinge sequence at the same sites as IgA1.

L5 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1989:551626 CAPLUS

DOCUMENT NUMBER: 111:151626

TITLE: Immunological characterization of a human homolog of the 65-kilodalton mycobacterial antigen

AUTHOR(S): Dudani, Anil K.; Gupta, Radhey S.

CORPORATE SOURCE: Dep. Biochem., McMaster Univ., Hamilton, ON, L8N
Searcher : Shears 308-4994

3Z5, Can.
 SOURCE: Infect. Immun. (1989), 57(9), 2786-93
 CODEN: INFIBR; ISSN: 0019-9567
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A human mitochondrial protein, designated P1 (63 kilodaltons [kDa]), shows extensive sequence homol. (47% identical residues and an addnl. .apprxeq.20% conserved changes) to the 65-kDa mycobacterial antigen. To understand the relationship of these proteins, the cross-reactivity of several monoclonal antibodies directed against the 65-kDa Mycobacterium leprae antigen towards human, Chinese hamster, chicken, and bacterial cells has been examd. A no. of antibodies cross-react with a 63-kDa antigen in vertebrate cell exts. and stained mitochondria in immunofluorescence studies. Some of these antibodies also reacted with a P1-.beta.-galactosidase fusion protein in recombinant Escherichia coli cells, expressing part of the human P1 protein. These results provide strong evidence that P1 is the mammalian homolog of the 65-kDa antigen. The human P1 protein also shows similarity to a no. of other bacterial and viral proteins including the pol **polyprotein** of human immunodeficiency viruses and the penicillin-binding protein of **Neisseria gonorrhoeae**. The obsd. similarity between human P1 protein and the major antigenic proteins of pathogenic organisms (e.g., 60- to 65-kDa mycobacterial antigen) suggests its possible involvement in autoimmune diseases (e.g., rheumatoid arthritis) by antigenic mimicry.

L5 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 1989:179505 CAPLUS
 DOCUMENT NUMBER: 110:179505
 TITLE: Gonococcal and meningococcal polypeptides, vaccines and diagnostics
 INVENTOR(S): Meyer, Thomas F.; Stern, Anne
 PATENT ASSIGNEE(S): Max-Planck-Gesellschaft zur Foerderung der Wissenschaften e.V., Fed. Rep. Ger.
 SOURCE: Eur. Pat. Appl., 15 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 273116	A2	19880706	EP 1987-114513	19871005
EP 273116	A3	19900502		

R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE

PRIORITY APPLN. INFO.: EP 1986-113993 19861009

AB Polypeptides which include an amino acid sequence constituted of
 Searcher : Shears 308-4994

5-80 amino acid residues and which is capable of immunol. mimicking a conserved antigenic determinant site of a gonococcal opacity protein (Protein II) (I) and/or meningococcal class 5 protein (II) are described. They may be used as diagnostic agents or vaccines for meningitis or gonorrhea.

L5 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1987:208679 CAPLUS
DOCUMENT NUMBER: 106:208679
TITLE: Gene conversion variations generate structurally distinct pilin polypeptides in *Neisseria gonorrhoeae*
AUTHOR(S): Swanson, John; Robbins, Kenneth; Barrera, Osmar; Koomey, J. Michael
CORPORATE SOURCE: Lab. Microb. Struct. Funct., Natl. Inst. Allergy Infect. Dis., Hamilton, MT, 59840, USA
SOURCE: J. Exp. Med. (1987), 165(4), 1016-25
CODEN: JEMEAV; ISSN: 0022-1007
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Pilus+ to pilus- phenotype change occurs in *N. gonorrhoeae* through gene conversion of the complete, expressed pilin gene by nucleotides homologous to the pilS1 copy 5 partial pilin gene; assembly missense pilin is synthesized but pili are not. Reversion to pilus+ occurs by a subsequent recombinational event that replaces the complete pilin gene's pilS1 copy 5-like sequence with nucleotides from a different partial gene to effect expression of an orthodox (i.e., pilus producing) pilin. Sibling pilus+ revertants of common parentage can carry different sequences in their expressed pilin genes because they have undergone nonidentical gene conversion events such as (a) recombinations with sequences from different partial genes, or (b) recombinations with different length nucleotide stretches of the same partial gene; either can yield structurally and antigenically variant pilin polypeptides.

L5 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1986:180783 CAPLUS
DOCUMENT NUMBER: 104:180783
TITLE: Polypeptides encoded by cryptic plasmids from *Neisseria gonorrhoeae*
AUTHOR(S): Aalen, Reidunn B.; Gundersen, Wenche Blix
CORPORATE SOURCE: Dep. Biol., Univ. Oslo, Blindern, 0315, Norway
SOURCE: Plasmid (1985), 14(3), 209-16
CODEN: PLSMDX; ISSN: 0147-619X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Almost all clin. isolates of *N. gonorrhoeae* harbor a small, phenotypically cryptic plasmid of approx. 4.1 kilobases. Several
Searcher : Shears 308-4994

09/388090

polypeptides encoded by 2 variants of such plasmids, 1 (pSB01C) having a deletion of .apprx.50 base-pairs (bp) in comparison with the other (p31788C), were identified, and the position of the genes for 2 of the proteins was detd. The cryptic plasmids were cloned into the HindIII site of the vectors pBR322 and pACYC184. The resulting recombinant plasmids were transformed into the Escherichia coli minicell producing strain DS410 (minB) and the plasmid-encoded proteins analyzed by SDS polyacrylamide gel electrophoresis. The pSB01C derivs. express 2 distinct proteins of 22 and 16 kilodaltons (kDa) and p31788C 2 other proteins of 24 and 18.5 kDa. Addnl., both plasmids express common proteins of 32.5, 9, and 7.5 kDa. The genes coding for the 24- and the 7.5-kDa proteins were mapped by restriction enzyme anal. of Tn5 insertions suppressing their expression. The addnl. 50 bp in p31788C are localized to the coding region of the 24-kDa protein, and the 22-kDa protein of pSB01C is possibly a shortened form of the former due to the lack of 50 bp.

L5 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1986:136069 CAPLUS

DOCUMENT NUMBER: 104:136069

TITLE: Peptide vaccine or diagnostic, and a polypeptide useful therefor

INVENTOR(S): So, Magdalene Y. H.; Deal, Carolyn D.; Hagblom, Per O.

PATENT ASSIGNEE(S): Scripps Clinic and Research Foundation, USA

SOURCE: PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8504654	A1	19851024	WO 1985-US565	19850404
W: AU, DK, FI, JP, NO, US				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AU 8541590	A1	19851101	AU 1985-41590	19850404
AU 582358	B2	19890323		
EP 177583	A1	19860416	EP 1985-901876	19850404
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 61501777	T2	19860821	JP 1985-501646	19850404
IL 74829	A1	19890228	IL 1985-74829	19850405
ZA 8502629	A	19851127	ZA 1985-2629	19850409
DK 8505652	A	19851205	DK 1985-5652	19851205
FI 8504839	A	19851205	FI 1985-4839	19851205
FI 81452	B	19900629		
FI 81452	C	19901010		
NO 8504903	A	19860204	NO 1985-4903	19851205
Searcher : Shears 308-4994				

PRIORITY APPLN. INFO.:

US 1984-597434 19840406

WO 1985-US565 19850404

AB A series of short synthetic polypeptides whose amino acid residue sequences correspond to small segments of the gonococcal pilin protein are used as immunogens in a vaccine prepn. against gonorrhea. Thus, gonococcal pilin protein polypeptides were synthesized by the Merrifield method. The polypeptides were conjugated to a tetanus toxoid carrier and the conjugates were used to detect anti-polypeptide antibody in rabbit antisera. Rabbit antisera that exhibited a 4-fold higher titer than the neg. control were considered pos. for the presence of anti-polypeptide antibodies. These antibodies were able to react pos. with both isolated gonococcal pilin and with whole *Neisseria* cells. Evidently, these polypeptides induce broad-spectrum antibodies and may be useful as components in broad-spectrum *N. gonorrhoeae* vaccines.

L5 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1979:538706 CAPLUS

DOCUMENT NUMBER: 91:138706

TITLE: Antigenic **polypeptide** complex from the
Melvin strain of *Neisseria***gonorrhoeae**: isolation and propertiesAUTHOR(S): Karkhanis, Yashwant D.; Anderson, Richard L.;
Zeltner, Johanna Y.; Carlo, Dennis J.; Stoudt,
Thomas H.

CORPORATE SOURCE: Merck Inst. Ther. Res., Rahway, NJ, 07065, USA

SOURCE: Infect. Immun. (1979), 25(2), 635-44

CODEN: INFIBR; ISSN: 0019-9567

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An antigenic complex was isolated in a highly purified form from the Melvin strain of *N. gonorrhoeae*. The complex had a mol. wt. of 9.3 .times. 10⁶ and on Na dodecyl sulfate-polyacrylamide gel electrophoresis was found to consist of several subunits; the most predominant had the following mol. wts.: 110,000, 94,000, 68,000, a smear (contg. 52,000, 48,000, and 44,000), 42,000, 36,000, 29,000, 28,000, 26,000, and 12,000 comprising 89% of the total protein. With the exception of the subunit of mol. wt. 110,000, no change in the content or the mobility of other subunits was obsd. when .beta.-mercaptoethanol was omitted from the denaturation soln. of Na dodecyl sulfate electrophoresis. Amino acid anal. of the complex showed a predominance of hydrophobic amino acids. Thus, noncovalent interactions between the subunits were implicated. When the cells were labeled with fluorescamine, a fluorescent complex was obtained with identical properties. Among several buffers used for the isolation of the complex, 0.2 M tris(hydroxymethyl)aminomethane buffer (pH 7.5) gave max. yield with low amts. of lipopolysaccharide and phospholipid; the choice of the buffer for column chromatog. did

Searcher : Shears 308-4994

not seem to make any difference. The high protein content and low amts. of lipopolysaccharide and phospholipid are characteristic properties of the complex.

L5 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1979:521960 CAPLUS

DOCUMENT NUMBER: 91:121960

TITLE: Antigenic subunit of the **polypeptide**
antigenic complex of the Melvin strain of
Neisseria gonorrhoeae

AUTHOR(S): Karkhanis, Yashwant D.; Anderson, Richard L.;
Zeltner, Johanna Y.; Maigetter, Robert Z.;
Carlo, Dennis J.; Stoudt, Thomas H.

CORPORATE SOURCE: Merck Inst. Ther. Res., Rahway, NJ, 07065, USA

SOURCE: Biochem. Biophys. Res. Commun. (1979), 89(2),
750-8

CODEN: BBRCA9; ISSN: 0006-291X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An antigenic subunit of mol. wt. 66,000 daltons has been isolated from the antigenic complex of the Melvin strain of *N. gonorrhoeae*. Incubation of the complex in 8 M urea at room temp. for 4 h resulted in the disocn. of the subunit from the complex. It was sepd. from the complex by chromatog. of the incubation mixt. on a Sepharose 6B column in 50 mM ammonium bicarbonate pH 8.5 without 8 M urea and further purified by affinity chromatog. A newly isolated antigenic protein devoid of lipopolysaccharide present in the bacteria was reported.

(FILE 'MEDLINE, BIOSIS, EMBASE, LIFESCI, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS' ENTERED AT 15:09:14 ON 18 APR 2000)

L6 71 S L5

L7 24 DUP REM L6 (47 DUPLICATES REMOVED)

L7 ANSWER 1 OF 24 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

ACCESSION NUMBER: 2000-062150 [05] WPIDS

DOC. NO. NON-CPI: N2000-048684

DOC. NO. CPI: C2000-017184

TITLE: Novel Neisserial polypeptides predicted to be
useful antigens for vaccines and diagnostics.

DERWENT CLASS: B04 D16 S03

INVENTOR(S): FRASER, C; GALEOTTI, C; GRANDI, G; HICKEY, E;
MASIGNANI, V; MORA, M; PETERSEN, J; PIZZA, M;
RAPPUOLI, R; RATTI, G; SCALATO, E; SCARSELLI, M;
TETTELIN, H; VENTER, J C

PATENT ASSIGNEE(S): (CHIR) CHIRON CORP; (GENO-N) INST GENOMIC RES

COUNTRY COUNT: 86

PATENT INFORMATION:

09/388090

PATENT NO	KIND	DATE	WEEK	LA	PG

WO 9957280	A2	19991111	(200005)*	EN	
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW NL OA PT SD SE SL SZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES					
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK					
LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG					
SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW					
AU 9939677	A	19991123	(200016)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

WO 9957280	A2	WO 1999-US9346	19990430
AU 9939677	A	AU 1999-39677	19990430

FILING DETAILS:

PATENT NO	KIND	PATENT NO

AU 9939677	A Based on	WO 9957280

PRIORITY APPLN. INFO: US 1999-121528 19990225; US 1998-83758
19980501; US 1998-94869 19980731; US
1998-98994 19980902; US 1998-99062
19980902; US 1998-103749 19981009; US
1998-103794 19981009; US 1998-103796 19981009

AN 2000-062150 [05] WPIDS

AB WO 9957280 A UPAB: 20000128

NOVELTY - Novel *Neisseria meningitis* and *N. gonorrhoeae* polypeptides and polynucleotides are disclosed.

DETAILED DESCRIPTION - A protein (I), one of the 1510 amino acid sequences given in the specification, is new.

INDEPENDENT CLAIMS are also included for the following:

- (1) a protein (Ia) having 50% or greater homology or (I);
- (2) a protein (Ib) comprising a fragment of 7 or more consecutive amino acids from (I);
- (3) an antibody which binds to (I), (Ia) or (Ib);
- (4) a nucleic acid (II), preferably comprising one of the 1510 polynucleotide sequences given in the specification, which encodes (I), (Ia) or (Ib);
- (5) a nucleic acid (IIa) comprising a fragment of 10 or more consecutive nucleotides from (II);
- (6) a nucleic acid (IIb) which is complementary to (II);
- (7) a vaccine, diagnostic or pharmaceutical composition comprising (I), (Ia), (Ib), (II), (IIa), (IIb), or the antibody of

Searcher : Shears 308-4994

(3);

(8) the use of the composition of (7) in the manufacture of a medicament for the treatment or prevention of infection due to Neisserial bacteria;

(9) an immunogenic composition comprising (I), (Ia) or (Ib).

ACTIVITY - Antigenic..

MECHANISM OF ACTION - None given.

USE - The proteins, the polynucleotides, antibodies and compositions of the invention are used as vaccines, as diagnostic reagents, and as immunogenic compositions (claimed). The proteins can be used in the manufacture of medicaments for treating or preventing infection due to Neisserial bacteria (e.g. meningitis and septicaemia), to detect the presence of Neisseria bacteria, or to raise antibodies. The proteins may also be used to screen for agonists or antagonists, which may themselves have use as antibacterial agents. The polynucleotides of the invention may also be used in gene therapy protocols.

ADVANTAGE - Neisseria meningitis causes both endemic and epidemic disease. The meningococcal vaccine currently in use induces a poor immune response and short duration of response, and cannot be used in infants. This is because it is a polysaccharide vaccine, which is T-cell dependent, and so cannot be boosted by repeated vaccinations. A need exists for the identification of secreted or surface-exposed proteins that are presumed targets of the immune system and which are not antigenically variable. These proteins would be useful for the development of vaccines against the pathogen. The present invention provides such proteins.
Dwg.0/23

L7	ANSWER 2 OF 24	MEDLINE	DUPLICATE 1
ACCESSION NUMBER:	1999217013	MEDLINE	
DOCUMENT NUMBER:	99217013		
TITLE:	The comp locus of Neisseria gonorrhoeae encodes a type IV prepilin that is dispensable for pilus biogenesis but essential for natural transformation.		
AUTHOR:	Wolfgang M; van Putten J P; Hayes S F; Koomey M		
CORPORATE SOURCE:	Department of Microbiology and Immunology, University of Michigan Medical School, Ann Arbor 48109-0620, USA.		
CONTRACT NUMBER:	A127837 (NCRR) M01 RR 00042		
SOURCE:	MOLECULAR MICROBIOLOGY, (1999 Mar) 31 (5) 1345-57. Journal code: MOM. ISSN: 0950-382X.		
PUB. COUNTRY:	ENGLAND: United Kingdom Journal; Article; (JOURNAL ARTICLE)		
LANGUAGE:	English		
FILE SEGMENT:	Priority Journals		
ENTRY MONTH:	199909		
AB	The expression of type IV pili (Tfp) by Neisseria gonorrhoeae has Searcher : Shears 308-4994		

been shown to be essential for natural genetic transformation at the level of sequence-specific uptake of DNA. All previously characterized mutants defective in this step of transformation either lack Tfp or are altered in the expression of Tfp-associated properties, such as twitching motility, autoagglutination and the ability to bind to human epithelial cells. To examine the basis for this relationship, we identified potential genes encoding **polypeptides** sharing structural similarities to Pile, the Tfp subunit, within the *N. gonorrhoeae* genome sequence database. We found that disruption of one such gene, designated comp (for competence-associated prepilin), leads to a severe defect in the capacity to take up DNA in a sequence-specific manner, but does not alter Tfp biogenesis or expression of the Tfp-associated properties of auto-agglutination, twitching motility and human epithelial cell adherence. Indirect evidence based on immunodetection suggests that Comp is expressed at very low levels relative to that of Pile. The process of DNA uptake in gonococci, therefore, is now known to require the expression of at least three distinct components: Tfp, the recently identified PilT protein and Comp.

L7 ANSWER 3 OF 24 MEDLINE DUPLICATE 2
 ACCESSION NUMBER: 1999440173 MEDLINE
 DOCUMENT NUMBER: 99440173
 TITLE: Probing secretion and translocation of a
 beta-autotransporter using a reporter single-chain Fv
 as a cognate passenger domain.
 AUTHOR: Veiga E; de Lorenzo V; Fernandez L A
 CORPORATE SOURCE: Departamento de Biotecnologia Microbiana, Centro
 Nacional de Biotecnologia, Campus de Cantoblanco,
 28049-Madrid, Spain.
 SOURCE: MOLECULAR MICROBIOLOGY, (1999 Sep) 33 (6) 1232-43.
 Journal code: MOM. ISSN: 0950-382X.
 PUB. COUNTRY: ENGLAND: United Kingdom
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200001
 ENTRY WEEK: 20000104
 AB The mechanism of protein secretion mediated by the beta-domain of
 the *Neisseria gonorrhoeae* IgA protease, a
 paradigm of a family of secreted **polypeptides** of
 Gram-negative bacteria called autotransporters, has been examined
 using a single-chain antibody (scFv) as a reporter passenger domain
 to monitor the translocation process. Fusion of a scFv to the
 beta-module of the IgA protease allowed us to investigate the
 passage of the chimeric protein through the periplasm, its insertion
 into the outer membrane and the movement of the N-terminal moiety
 towards the cell surface. As the binding activity of the scFv to its
 Searcher : Shears 308-4994

target antigen is entirely dependent on the formation of disulphide bonds, the relationship between secretion, folding and formation of S-S bridges could be analysed in detail. In contrast to the current notion that only an unfolded N-passenger domain can be translocated through the beta-domain, our results show that the scFv is able to pass through the outer membrane, albeit at a threefold reduced level, in an active conformation with its disulphide bonds preformed in the periplasm through the action of the DsbA product. These data call for a re-evaluation of the prevailing model for secretion of the N-domain of autotransporters.

L7 ANSWER 4 OF 24 MEDLINE DUPLICATE 3
 ACCESSION NUMBER: 1999115537 MEDLINE
 DOCUMENT NUMBER: 99115537
 TITLE: Neisseria gonorrhoeae mutants altered in toxicity to human fallopian tubes and molecular characterization of the genetic locus involved.
 AUTHOR: Arvidson C G; Kirkpatrick R; Witkamp M T; Larson J A; Schipper C A; Waldbeser L S; O'Gaora P; Cooper M; So M
 CORPORATE SOURCE: Department of Molecular Microbiology and Immunology, Oregon Health Sciences University, Portland, Oregon 97201, USA.. arvidson@ohsu.edu
 CONTRACT NUMBER: RO AI34560 (NIAID)
 SOURCE: INFECTION AND IMMUNITY, (1999 Feb) 67 (2) 643-52. Journal code: GO7. ISSN: 0019-9567.
 PUB. COUNTRY: United States
 LANGUAGE: English
 FILE SEGMENT: Priority Journals; Cancer Journals
 OTHER SOURCE: GENBANK-AF003941
 ENTRY MONTH: 199905
 ENTRY WEEK: 19990502

AB In an effort to identify potential cytotoxins expressed by *Neisseria gonorrhoeae*, we have identified a locus that, when mutated in the gonococcus, results in a significant increase in toxicity of the strain to human fallopian tube organ cultures (HFTOC). This locus, *gly1*, contains two open reading frames (ORFs) which are likely cotranscribed. ORF1 encodes a polypeptide of 17.8 kDa with a signal sequence that is recognized and processed in *Escherichia coli* and *N. gonorrhoeae*. The 15.6-kDa processed polypeptide has been observed in membrane fractions and filtered spent media from cultures of *E. coli* expressing *gly1* and in outer membrane preparations of wild-type *N. gonorrhoeae*. The *gly1* locus is not essential for bacterial survival, and it does not play a detectable role in epithelial cell adhesion, invasion, or intracellular survival. However, a *gly1* null mutant causes much more damage to fallopian tube tissues than its isogenic wild-type parent. A strain complemented in trans for the *gly1* mutation showed a level

Searcher : Shears 308-4994

of toxicity to HFTOC similar to the level elicited by the wild-type parent. Taken together, these results indicate an involvement of the gly1 locus in the toxicity of *N. gonorrhoeae* to human fallopian tubes.

L7 ANSWER 5 OF 24 MEDLINE DUPLICATE 4
 ACCESSION NUMBER: 1998336886 MEDLINE
 DOCUMENT NUMBER: 98336886
 TITLE: Expression of iron binding proteins and hemin binding activity in the dental pathogen *Actinobacillus actinomycetemcomitans*.
 AUTHOR: Graber K R; Smoot L M; Actis L A
 CORPORATE SOURCE: Department of Microbiology, Miami University, Oxford, OH 45056, USA.
 CONTRACT NUMBER: AI37781 (NIAID)
 SOURCE: FEMS MICROBIOLOGY LETTERS, (1998 Jun 15) 163 (2) 135-42.
 Journal code: FML. ISSN: 0378-1097.
 PUB. COUNTRY: Netherlands
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199810

AB *Actinobacillus actinomycetemcomitans* was found to express a **polypeptide** immunologically related to the *Neisseria gonorrhoeae* FbpA iron binding protein. In addition, the expression of hitB and hitC homologs was detected by Northern blot analysis. This periodontal pathogen also expresses a polypeptide homologous to the 31-kDa Haemophilus influenzae protein, which shows amino acid sequence homology with the FimA and YfeA proteins from *Streptococcus parasanguis* and *Yersinia pestis*, respectively. Both *A. actinomycetemcomitans* protein homologs were located within the periplasmic space, and their synthesis was regulated by the iron and hemin concentration of the culture medium. Southern and Western blot analysis together with molecular cloning revealed the presence of a Fur-like repressor, which may control the iron regulation of gene expression in this bacterium. Cultivation in the presence of hemin or Congo red revealed the ability of this organism to bind hemin. This binding activity was further confirmed by isolating *Escherichia coli* DH5 alpha clones that produced red and brown colonies on agar plates containing Congo red and hemin, respectively, after transformation with an *A. actinomycetemcomitans* gene library.

L7 ANSWER 6 OF 24 MEDLINE DUPLICATE 5
 ACCESSION NUMBER: 97315224 MEDLINE
 DOCUMENT NUMBER: 97315224
 TITLE: Porin polypeptide contributes to surface charge of gonococci.
 AUTHOR: Swanson J; Dorward D; Lubke L; Kao D
 Searcher : Shears 308-4994

09/388090

CORPORATE SOURCE: Laboratory of Microbial Structure and Function, Rocky Mountain Laboratories, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Hamilton, Montana 59840, USA..
John_Swanson@nih.gov

SOURCE: JOURNAL OF BACTERIOLOGY, (1997 Jun) 179 (11) 3541-8.
Journal code: HH3. ISSN: 0021-9193.

PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199709

ENTRY WEEK: 19970902

AB Each strain of *Neisseria gonorrhoeae* elaborates a single porin **polypeptide**, with the porins expressed by different strains comprising two general classes, Por1A and Por1B. In the outer membrane, each porin molecule folds into 16 membrane-spanning beta-strands joined by top- and bottom-loop domains. Por1A and Por1B have similar membrane-spanning regions, but the eight surface-exposed top loops (I to VIII) differ in length and sequence. To determine whether porins, and especially their top loop domains, contribute to bacterial cell surface charge, strain MS11 gonococci that were identical except for expressing a recombinant Por1A, Por1B, or mosaic Por1A-1B polypeptide were compared by whole-cell electrophoresis. These porin variants displayed different electrophoretic mobilities that correlated with the net numbers of charged amino acids within surface-exposed loops of their respective porin polypeptides. The susceptibilities of porin variants to polyanionic sulfated polymers correlated roughly with gonococcal surface charge; those porin variants with diminished surface negativity showed increased sensitivity to the polyanionic sulfated compounds. These observations indicate that porin polypeptides in situ contribute to the surface charge of gonococci, and they suggest that the bacterium's interactions with large sulfated compounds are thereby affected.

L7 ANSWER 7 OF 24 MEDLINE DUPLICATE 6

ACCESSION NUMBER: 97261830 MEDLINE

DOCUMENT NUMBER: 97261830

TITLE: The complete sequence, expression in *Escherichia coli*, purification and some properties of carbonic anhydrase from *Neisseria gonorrhoeae*.

AUTHOR: Chirica L C; Elleby B; Jonsson B H; Lindskog S

CORPORATE SOURCE: Department of Biochemistry, Umea University, Sweden.

SOURCE: EUROPEAN JOURNAL OF BIOCHEMISTRY, (1997 Mar 15) 244 (3) 755-60.
Journal code: EMZ. ISSN: 0014-2956.

PUB. COUNTRY: GERMANY: Germany, Federal Republic of
Journal; Article; (JOURNAL ARTICLE)

Searcher : Shears 308-4994

09/388090

LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
OTHER SOURCE: GENBANK-Y11152
ENTRY MONTH: 199707
ENTRY WEEK: 19970704

AB The complete nucleotide sequence of the carbonic anhydrase gene from *Neisseria gonorrhoeae* has been determined. The gene encodes a 252-residue polypeptide with a molecular mass of 28085 Da. The gene has been cloned and overexpressed in *Escherichia coli*, and the enzyme has been purified. A 26-residue signal peptide is cleaved off by the *E. coli* processing machinery. Thus, the isolated enzyme contains 226 amino acid residues with a molecular mass of 25314 Da. Most of the enzyme seems to be produced as a soluble protein located in the periplasm of *E. coli*. The enzyme is homologous to carbonic anhydrases from the animal kingdom; it is an alpha-carbonic anhydrase. A comparison with the amino acid sequences of human carbonic anhydrases I and II suggests that the secondary structures are essentially intact in the bacterial enzyme but that several loops are much shorter than in the human forms. Most of the active-site residues are identical to those found in the high-activity human isozyme II. The bacterial enzyme has a high CO₂ hydration activity with a $k(\text{cat})$ of $1.1 \times 10^6 \text{ s}^{-1}$ and K_m of 20 mM at pH 9 and 25 degrees C. The enzyme also catalyzes the hydrolysis of 4-nitrophenyl acetate. The pH/rate profile can be described as a titration curve with pK_a of 6.7 and a maximal value of the catalytic second-order rate constant, $k(\text{enz})$, of $130 \text{ M}^{-1} \text{ s}^{-1}$.

L7 ANSWER 8 OF 24 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1996-321651 [32] WPIDS
DOC. NO. CPI: C1996-102388
TITLE: Use of nucleic acids in gene therapy - for altering characteristics of at least some of reproductive tract cells of mammal.
DERWENT CLASS: B04 D16
INVENTOR(S): CHARNOCK-JONES, D S; HEAP, R B; SHARKEY, A M; SMITH, S K; HEAP, B R; SMITH, K S
PATENT ASSIGNEE(S): (UYCA-N) UNIV CAMBRIDGE TECH SERVICES LTD
COUNTRY COUNT: 66
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
-----------	------	------	------	----	----

WO 9620013	A1	19960704	(199632)*	EN	40
------------	----	----------	-----------	----	----

RW:	AT	BE	CH	DE	DK	ES	FR	GB	GR	IE	IT	KE	LS	LU	MC	MW	NL	OA	PT	SD	SE	SZ	UG
-----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

W:	AM	AT	AU	BB	BG	BR	BY	CA	CH	CN	CZ	DE	DK	EE	ES	FI	GB	GE	HU	IS	JP	KE	KG	KP	KR	KZ	LK	LR	LT	LU	LV	MD	MG	MN	MW	MX	NO	NZ	PL	PT	RO	RU	SD	SE	SG	SI	SK	TJ	TM	TT	UA	UG	US	UZ	VN
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Searcher : Shears 308-4994

09/388090

AU 9642707 A 19960719 (199647)
EP 799058 A1 19971008 (199745) EN
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
NO 9702935 A 19970822 (199745)
HU 77338 T 19980330 (199823)
SK 9700801 A3 19980408 (199824)
CZ 9701917 A3 19980617 (199830)
BR 9510408 A 19981110 (199850)
JP 10511548 W 19981110 (199904) 41
KR 98700874 A 19980430 (199914)
MX 9704765 A1 19980201 (199954)
AU 712278 B 19991104 (200003)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9620013	A1	WO 1995-GB3008	19951221
AU 9642707	A	AU 1996-42707	19951221
EP 799058	A1	EP 1995-941229	19951221
		WO 1995-GB3008	19951221
NO 9702935	A	WO 1995-GB3008	19951221
		NO 1997-2935	19970623
HU 77338	T	WO 1995-GB3008	19951221
		HU 1997-2205	19951221
SK 9700801	A3	WO 1995-GB3008	19951221
		SK 1997-801	19951221
CZ 9701917	A3	WO 1995-GB3008	19951221
		CZ 1997-1917	19951221
BR 9510408	A	BR 1995-10408	19951221
		WO 1995-GB3008	19951221
JP 10511548	W	WO 1995-GB3008	19951221
		JP 1996-520293	19951221
KR 98700874	A	WO 1995-GB3008	19951221
		KR 1997-704336	19970624
MX 9704765	A1	MX 1997-4765	19970624
AU 712278	B	AU 1996-42707	19951221

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9642707	A Based on	WO 9620013
EP 799058	A1 Based on	WO 9620013
HU 77338	T Based on	WO 9620013
CZ 9701917	A3 Based on	WO 9620013
BR 9510408	A Based on	WO 9620013
JP 10511548	W Based on	WO 9620013
KR 98700874	A Based on	WO 9620013

Searcher : Shears 308-4994

09/388090

AU 712278 B Previous Publ. AU 9642707
Based on WO 9620013

PRIORITY APPLN. INFO: GB 1995-20879 19951012; GB 1994-26380
19941224

AN 1996-321651 [32] WPIDS

AB WO 9620013 A UPAB: 19960819

A method for altering 1 characteristic of at least some of the cells of the reproductive tract of a mammalian individual, by the introduction of a nucleic acid into the cells, is new.

Also claimed is the use of a compsn. for carrying out above mentioned method comprising nucleic acid in the prepn. of a substance.

USE - The method can be used to alter the fertility of the individual. It can also be used to express a polypeptide having a local immunological effect, such as a **polypeptide** from HIV, papilloma viruses, Chlamydia or **N. gonorrhoea** (all claimed).

Dwg.0/4 .

L7 ANSWER 9 OF 24 LIFESCI COPYRIGHT 2000 CSA

ACCESSION NUMBER: 97:82919 LIFESCI

TITLE: Support-bound nucleotide probe for *Neisseria gonorrhoeae*

CORPORATE SOURCE: BEHRINGWERKE AKTIENGESELLSCHAFT

SOURCE: (1996) . US Patent 5525717; US Cl. 536/24.32 435/6 435/91.1 435/871 536/23.1 536/24.3.

DOCUMENT TYPE: Patent

FILE SEGMENT: A

LANGUAGE: English

AB A nucleotide sequence characteristic of *Neisseria gonorrhoeae* is disclosed. The sequence can be the basis for hybridization type, nucleic acid-based, rapid, in vitro diagnostic assays. The unique nature of the sequence makes it possible to clearly discriminate *N. gonorrhoeae* from other *Neisseria* species thus eliminating or substantially reducing the number of false positive readings. A 350 base pair *N. gonorrhoeae* DNA restriction fragment was cloned after subtractive hybridization to *Neisseria meningitidis* DNA. In further cloning experiments the sequences adjacent to the original 350 base pair fragment were determined. A portion of this sequence was shown to detect 105 of 106 *N. gonorrhoeae* strains and no other *Neisseria* species. In addition to use as detection probes, all or portions of the nucleotide sequence can be used as a ligand for the sandwich capture of *N. gonorrhoeae* sequences and as primers for in vitro amplification of *N. gonorrhoeae* sequences. The **polypeptides** encoded by the presently disclosed sequence, including antibodies thereto, are also disclosed as are their uses.

L7 ANSWER 10 OF 24 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
Searcher : Shears 308-4994

09/388090

ACCESSION NUMBER: 1993-350818 [44] WPIDS
CROSS REFERENCE: 1996-286454 [29]; 2000-146910 [13]
DOC. NO. CPI: C1993-155682
TITLE: DNA specific for neisseria gonorrhoeae - used for
rapid detection of N-gonorrhoeae infection using
labelled probes, with reduced incidence of false
positive readings.
DERWENT CLASS: B04 D16
INVENTOR(S): BORN, T L; MIYADA, C G
PATENT ASSIGNEE(S): (SYNT) SYNTEX USA INC
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 5256536	A	19931026	(199344)*		18

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 5256536	A	US 1990-611528	19901109

PRIORITY APPLN. INFO: US 1990-611528 19901109

AN 1993-350818 [44] WPIDS

CR 1996-286454 [29]; 2000-146910 [13]

AB US 5256536 A UPAB: 20000313

A nucleotide sequence (I) specific for Neisseria gonorrhoeae comprises at least 17 contiguous nucleotides.

Also claimed are: (1) a polynucleotide probe specific for N. gonorrhoeae which is capable of selectively hybridising to the DNA of SEQ ID NO:1 or its complement; (2) a conjugate comprising a label bound to a probe of (1); (3) a method for detecting the presence of N. gonorrhoeae infection which involves: (a) providing, in combination, (i) a medium suspected of contg. N. gonorrhoeae DNA and (ii) at least one probe as in (1), under conditions where complexes of the probe and single stranded N. gonorrhoeae DNA may form; and (b) detecting the complexes; and (4) a kit for carrying out the above assay.

USE/ADVANTAGE - The DNA can be used as the basis for a rapid in-vitro diagnostic assays for N. gonorrhoeae infection. The unique nature of the sequence makes it possible to clearly discriminate N. gonorrhoeae from other Neisseria species thus eliminating or reducing the number of false positive readings. The DNA may also be used as a ligand for the sandwich capture of N. gonorrhoeae and as primers for in vitro amplification of N.

gonorrhoeae sequences. Polypeptides encoded by the sequences may be used to prepare antibodies.

Searcher : Shears 308-4994

09/388090

Dwg.0/4

L7 ANSWER 11 OF 24 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1992-349224 [42] WPIDS
DOC. NO. CPI: C1992-155082
TITLE: Recombinant chimeric porin epitope(s) of Neisseria
gonorrhoeae - useful in diagnosing and preventing
gonococcal infections, is non-toxic in E. coli.
DERWENT CLASS: B04 D16
INVENTOR(S): GOLDSTEIN, N; TACKNEY, C; GOLDSTEIN, N I; TACKNEY,
C T
PATENT ASSIGNEE(S): (IMCL-N) IMCLONE SYSTEMS INC
COUNTRY COUNT: 25
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9216643	A1	19921001	(199242)*	EN	63
RW: AT BE CH DE DK ES FR GB GR IT LU MC NL SE					
W: AU CA FI HU JP KR NO RO RU					
AU 9217492	A	19921021	(199303)		
EP 575553	A1	19931229	(199401)	EN	
R: AT BE CH DE DK ES FR GB GR IT LI LU MC NL SE					
JP 06507545	W	19940901	(199439)		
EP 575553	A4	19950705	(199617)		
US 5547670	A	19960820	(199639)		21
EP 575553	B1	19981216	(199903)	EN	
R: AT BE CH DE DK ES FR GB GR IT LI LU MC NL SE					
DE 69227898	E	19990128	(199910)		
CA 2105382	C	19990119	(199914)		
ES 2127217	T3	19990416	(199922)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9216643	A1	WO 1992-US2090	19920313
AU 9217492	A	AU 1992-17492	19920313
		WO 1992-US2090	19920313
EP 575553	A1	EP 1992-910113	19920313
		WO 1992-US2090	19920313
JP 06507545	W	JP 1992-509343	19920313
		WO 1992-US2090	19920313
EP 575553	A4	EP 1992-910113	
US 5547670	A Cont of	US 1991-669528	19910314
		US 1993-124369	19930920
EP 575553	B1	EP 1992-910113	19920313
		WO 1992-US2090	19920313
DE 69227898	E	DE 1992-627898	19920313

Searcher : Shears 308-4994

09/388090

CA 2105382	C	EP 1992-910113	19920313
ES 2127217	T3	WO 1992-US2090	19920313
		CA 1992-2105382	19920313
		EP 1992-910113	19920313

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9217492	A Based on	WO 9216643
EP 575553	A1 Based on	WO 9216643
JP 06507545	W Based on	WO 9216643
EP 575553	B1 Based on	WO 9216643
DE 69227898	E Based on	EP 575553
	Based on	WO 9216643
ES 2127217	T3 Based on	EP 575553

PRIORITY APPLN. INFO: US 1991-669528 19910314; US 1993-124369
19930920

AN 1992-349224 [42] WPIDS

AB WO 9216643 A UPAB: 19931115

Polypeptide (I) comprises at least 1 antigenic sequence present in P.IA and at least 1 antigenic sequence present in P.IB of N. gonarheae. It is non-toxic in E. coli. Also new are:- (1) detection of the presence of antibodies specific for P.IA and those specific for P.IB of N. gonorrheae in a sample comprising:- (a) incubating the sample with (I); and (b) detecting the presence of antibody bound to (I); (2) immunisation of a mammal simultaneously against N. gonorrheae serovars IA and IB comprising administering an effective amt. of (I); (3) a vaccine compsn. comprising an effective amount of (I) in a pharmaceutically acceptable medium; and (4) a DNA molecule encoding (I).

USE/ADVANTAGE - (I) is useful in vaccines for the prevention of diseases caused by gonococcal infections, e.g. gonorrhea. In addn. it can be used to diagnose such infections.

In an example mice are hyperimmunised with GC26 to show the efficacy of the chimeric polypeptide (I) to induce anti-P.IA and P.IB humoral response. Bacterial cells contg. the construct are washed and lysed. Protein concn. is determined and 100 mg of (I) or PATH vector alone is injected into female Balb/c mice (8-10 weeks old) along with complete Freund's adjuvant. A 2nd injection of 100 mg is given at 7 days with incomplete Freund's adjuvant and a find injection of 100 mg at 21 days. 7 days after the find injection the animals are bled from the retro-orbital socket of the eye, and the sera isolated by centrifugation. Time of anti-P.IA and P.IB humoral response is determined by ELISA using goat-anti-mouse Ig conjugated to horseradish peroxidase with a suitable chromagen
Dwg.0/0

ABEQ US 5547670 A UPAB: 19961004

Searcher : Shears 308-4994

09/388090

A polypeptide that is non-toxic in E. coil wherein the polypeptide comprises a sequence of P.IA of N. gonorrhoeae wherein the sequence is limited to the 25 amino acid sequence given in the specification and a sequence of P.IB of N. gonorrhoeae wherein the sequence is limited to the 27 amino acid sequence given in the specification.

Dwg.0/5

L7 ANSWER 12 OF 24 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1992-299974 [36] WPIDS
CROSS REFERENCE: 1999-008809 [01]
DOC. NO. NON-CPI: N1992-229717
DOC. NO. CPI: C1992-133797
TITLE: Polypeptide(s) encoded by PILC1 or PILC2
of NEISSERIA GONORRHOEAE - for
diagnosis of and vaccination against NEISSERIA
infections.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): JONSSON, A; NORMARK, S
PATENT ASSIGNEE(S): (UNIW) UNIV WASHINGTON
COUNTRY COUNT: 35
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9213871	A1	19920820	(199236)*	EN	122
RW: AT BE CH DE DK ES FR GB GR IT LU MC NL OA SE					
W: AT AU BB BG BR CA CH CS DE DK ES FI GB HU JP KP KR LK LU MG					
MN MW NL NO PL RO RU SD SE					
AU 9214114	A	19920907	(199249)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9213871	A1	WO 1992-US863	19920131
AU 9214114	A	AU 1992-14114	19920131
		WO 1992-US863	19920131

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9214114	A Based on	WO 9213871

PRIORITY APPLN. INFO: US 1991-648781 19910131
AN 1992-299974 [36] WPIDS
CR 1999-008809 [01]
AB WO 9213871 A UPAB: 19990107
Searcher : Shears 308-4994

The following are claimed: (A) a recombinant polynucleotide encoding a polypeptide comprising an immunoreactive epitope of a protein encoded in pilC of *Neisseria*; (B) a vector comprising a recombinant polynucleotide as in (A); (C) a host cell transformed with a vector as in (B); (D) a recombinant expression system comprising a polynucleotide as in (A) operably linked to a control sequence compatible with a desired host; (E) a cell transformed with a recombinant expression system as in (D); (F) a polypeptide produced by a cell as in (E); (G) a purified polypeptide comprising an immunoreactive epitope of a protein encoded in pilC of *Neisseria*; (H) a recombinant polypeptide comprising an immunoreactive epitope of a protein encoded in pilC of *Neisseria*; (I) a compsn. comprising purified polyclonal anti-PilC antibodies, where the pilC is of *Neisseria*; (J) a compsn. comprising a monoclonal antibody (MAB) directed against an immunoreactive epitope encoded in pilC of *Neisseria*; (K) an oligomer capable of hybridising to a sequence in pilC of *Neisseria*, where the oligomer comprises a pilC sequence complementary to at least 6 contiguous nucleotides of pilC; (L) a recombinant polynucleotide comprising a DNA sequence of at least 8 contiguous nucleotides from pilC where the pilC sequence is as shown.

USE - The polynucleotides, polypeptides and antibodies can be used, opt. in the form of kits, in the detection of pilC or anti-pilC antibodies for the diagnosis of pathogenic microorganisms contg. type 4 pil

Dwg.0/7

L7 ANSWER 13 OF 24 MEDLINE

DUPLICATE 7

ACCESSION NUMBER: 93095112 MEDLINE

DOCUMENT NUMBER: 93095112

TITLE: Identification of highly conserved and species-specific polypeptides of *Haemophilus ducreyi*.

AUTHOR: Alfa M J; Yang C L; Slaney L A; Kwok A Y; Ronald A R; Jay F T

CORPORATE SOURCE: Department of Medical Microbiology, Faculty of Medicine, University of Manitoba, Winnipeg, Canada..

SOURCE: JOURNAL OF MEDICAL MICROBIOLOGY, (1992 Dec) 37 (6) 413-9.

Journal code: J2N. ISSN: 0022-2615.

PUB. COUNTRY: ENGLAND: United Kingdom

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199303

AB Chancroid is a sexually transmitted disease caused by *Haemophilus ducreyi*. The pathological manifestations of chancroid are unique among *Haemophilus* species and the virulence factors of *H. ducreyi* that account for these features have not been identified. Some of these virulence factors may be unique components of *H. ducreyi*, but

Searcher : Shears 308-4994

attempts to identify *H. ducreyi*-specific components have been unsuccessful. Four polypeptides--A, B, C and D of 83, 77, 56 and 28 kDa, respectively--were identified with a panel of nine *H. ducreyi*-specific monoclonal antibodies (MAbs). Polypeptide C was one of the five major proteins in *H. ducreyi* and demonstrated micro-heterogeneity in SDS-PAGE. Polypeptides A, B and D were present in only small amounts in whole-cell lysates of *H. ducreyi*. The relative amounts of A and B varied, suggesting that they may be precursor molecules. The unique polypeptides C and D were not exposed on the surface. Polypeptide C was highly soluble and did not appear to be membrane-bound, whereas polypeptide D appeared to partition with the cytoplasmic membrane and was soluble in Sarkosyl. All four polypeptides appeared to be unique to *H. ducreyi* since MAbs directed against them did not cross-react with *H. influenzae*, *H. parainfluenzae* or *Neisseria gonorrhoeae*. The mol. wts of all of these polypeptides were conserved throughout 35 clinical isolates collected from 15 cities in eight countries and one reference strain of *H. ducreyi* that were tested. (ABSTRACT TRUNCATED AT 250 WORDS)

L7 ANSWER 14 OF 24 BIOSIS COPYRIGHT 2000 BIOSIS DUPLICATE 8
 ACCESSION NUMBER: 1992:308331 BIOSIS
 DOCUMENT NUMBER: BA94:21481
 TITLE: ENDOGLUCANASE A FROM CELLULOMONAS-FIMI IN WHICH THE HINGE SEQUENCE OF HUMAN IGA1 IS SUBSTITUTED FOR THE LINKER CONNECTING ITS TWO DOMAINS IS HYDROLYZED BY IGA PROTEASES FROM NEISSERIA-GONORRHOEAE.
 AUTHOR(S): MILLER P B; SHEN H; GILKES N R; KILBURN D G; MILLER R C JR; PLAUT A G; WARREN R A J
 CORPORATE SOURCE: DEP. MICROBIOL., UNIV. BRITISH COLUMBIA, 300-6174 UNIVERSITY BLVD., VANCOUVER, B.C. CAN. V6T 1Z3.
 SOURCE: FEMS (FED EUR MICROBIOL SOC) MICROBIOL LETT, (1992) 92 (2), 199-203.
 CODEN: FMLED7. ISSN: 0378-1097.
 FILE SEGMENT: BA; OLD
 LANGUAGE: English

AB The hinge in IgA1 and the linker in endoglucanase A (CenA) are quite similar. The IgA1 hinge is 18 amino acids long and contains only proline, threonine and serine. The linker in CenA is 27 amino acids long and contains only proline, threonine and a single serine. IgA proteases from *Neisseria gonorrhoeae* cleave Pro-Ser and Pro-Thr bonds within the IgA1 hinge sequence, but they do not attack CenA. When the linker sequence of CenA is replaced with the hinge sequence of IgA1, the hybrid polypeptide is susceptible to the *N. gonorrhoeae* proteases. It is cleaved within the hinge sequence at the same sites as IgA1.

L7 ANSWER 15 OF 24 MEDLINE
 ACCESSION NUMBER: 92290257 MEDLINE
 Searcher : Shears 308-4994

09/388090

DOCUMENT NUMBER: 92290257
TITLE: Endoglucanase A from Cellulomonas fimi in which the hinge sequence of human IgA1 is substituted for the linker connecting its two domains is hydrolyzed by IgA proteases from Neisseria gonorrhoeae.
AUTHOR: Miller P B; Shen H; Gilkes N R; Kilburn D G; Miller R C Jr; Plaut A G; Warren R A
CORPORATE SOURCE: Department of Microbiology, University of British Columbia, Vancouver, Canada.
CONTRACT NUMBER: DE60811 (NIDCR)
P30-DK34928 (NIDDK)
SOURCE: FEMS MICROBIOLOGY LETTERS, (1992 Apr 15) 71 (2) 199-203.
Journal code: FML. ISSN: 0378-1097.
PUB. COUNTRY: Netherlands
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199209

AB The hinge in IgA1 and the linker in endoglucanase A (CenA) are quite similar. The IgA1 hinge is 18 amino acids long and contains only proline, threonine and serine. The linker in CenA is 27 amino acids long and contains only proline, threonine and a single serine. IgA proteases from Neisseria gonorrhoeae cleave Pro-Ser and Pro-Thr bonds within the IgA1 hinge sequence, but they do not attack CenA. When the linker sequence of CenA is replaced with the hinge sequence of IgA1, the hybrid **polypeptide** is susceptible to the **N. gonorrhoeae** proteases. It is cleaved within the hinge sequence at the same sites as IgA1.

L7 ANSWER 16 OF 24 MEDLINE

DUPLICATE 9

ACCESSION NUMBER: 89339726 MEDLINE
DOCUMENT NUMBER: 89339726
TITLE: Immunological characterization of a human homolog of the 65-kilodalton mycobacterial antigen.
AUTHOR: Dudani A K; Gupta R S
CORPORATE SOURCE: Department of Biochemistry, McMaster University, Hamilton, Ontario, Canada.
SOURCE: INFECTION AND IMMUNITY, (1989 Sep) 57 (9) 2786-93.
Journal code: GO7. ISSN: 0019-9567.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 198911

AB A human mitochondrial protein, designated P1 (63 kilodaltons [kDa], shows extensive sequence homology (47% identical residues and an additional approximately 20% conserved changes) to the 65-kDa mycobacterial antigen. To understand the relationship of these

Searcher : Shears 308-4994

proteins, the cross-reactivity of several monoclonal antibodies directed against the 65-kDa Mycobacterium leprae antigen towards human, Chinese hamster, chicken, and bacterial cells has been examined. A number of antibodies (Y1-2, ML 30-A2, and F47-9-1) were found to cross-react with a 63-kDa antigen in vertebrate cell extracts and stained mitochondria in immunofluorescence studies. Some of these antibodies also reacted with a P1-beta-galactosidase fusion protein in recombinant Escherichia coli cells, expressing part of the human P1 protein. These results provide strong evidence that P1 is the mammalian homolog of the 65-kDa antigen. The human P1 protein also shows significant similarity (P less than 0.001) to a number of other bacterial and viral proteins including the pol **polyprotein** of human immunodeficiency viruses and the penicillin-binding protein of **Neisseria gonorrhoeae**. The observed similarity between human P1 protein and the major antigenic proteins of pathogenic organisms (e.g., 60- to 65-kDa mycobacterial antigen) suggests its possible involvement in autoimmune diseases (e.g., rheumatoid arthritis) by antigenic mimicry.

L7 ANSWER 17 OF 24 BIOSIS COPYRIGHT 2000 BIOSIS

ACCESSION NUMBER: 1989:18850 BIOSIS

DOCUMENT NUMBER: BR36:6527

TITLE: SEQUENCE ANALYSIS OF VARIANT PILIN GENES FROM
NEISSERIA-GONORRHOEAE P9 AND
IMMUNOLOGICAL PROPERTIES OF PILIN
POLYPEPTIDES ENCODED BY CLONED GENES IN
ESCHERICHIA-COLI.

AUTHOR(S): NICOLSON I J; PERRY A C F; HECKELS J E; SAUNDERS J R
CORPORATE SOURCE: DEP. MICROBIOL., UNIV. LIVERPOOL, LIVERPOOL, UK.
SOURCE: POOLMAN, J. T., ET AL. (ED.). GONOCOCCI AND
MENINGOCOCCI: EPIDEMIOLOGY, GENETICS, IMMUNOCHEMISTRY
AND PATHOGENESIS; 5TH INTERNATIONAL PATHOGENIC
NEISSERIAE CONFERENCE, NOORDWIJKERHOUT, NETHERLANDS,
SEPTEMBER 15-18, 1986. XV+842P. KLUWER ACADEMIC
PUBLISHERS: DORDRECHT, NETHERLANDS; BOSTON,
MASSACHUSETTS, USA. ILLUS, (1988) 0 (0), 289-296.
ISBN: 90-247-3607-2.

FILE SEGMENT: BR; OLD

LANGUAGE: English

L7 ANSWER 18 OF 24 MEDLINE

DUPLICATE 10

ACCESSION NUMBER: 89039253 MEDLINE

DOCUMENT NUMBER: 89039253

TITLE: Nucleotide sequence of the structural gene for class
I pilin from Neisseria meningitidis: homologies with
the pile locus of Neisseria gonorrhoeae.

AUTHOR: Potts W J; Saunders J R

CORPORATE SOURCE: Department of Microbiology, University of Liverpool,
Searcher : Shears 308-4994

UK.
 SOURCE: MOLECULAR MICROBIOLOGY, (1988 Sep) 2 (5) 647-53.
 Journal code: MOM. ISSN: 0950-382X.
 PUB. COUNTRY: ENGLAND: United Kingdom
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 OTHER SOURCE: GENBANK-X07731
 ENTRY MONTH: 198902
 AB The nucleotide sequence has been determined for the expressed pilin (pile) locus of *Neisseria meningitidis* strain C311 which produces class I pili that are antigenically and structurally similar to those of gonococci. The deduced amino acid sequence of the N. meningitidis pile translation product contains a 7 amino acid N-terminal pre-pilin leader sequence which is identical to that found in gonococcal pilin and which is characteristic of N-methylphenylalanine pili in general. The succeeding N-terminal 53 amino acids are identical to those found in the equivalent position in antigenically variant gonococcal pilins and confirm direct peptide sequencing of the amino-terminus of at least one type of meningococcal pilin. Other regions that are conserved in variant pilin **polypeptides** from *Neisseria gonorrhoeae* are conserved at the amino acid level in the class I meningococcal pilin but the coding DNA contains numerous base substitutions when compared with the equivalent gonococcal pil sequence. Sequences extending downstream for about 140 bp on the 3' side of the coding region for both pilin genes are only about 85% homologous.

L7 ANSWER 19 OF 24 MEDLINE DUPLICATE 11
 ACCESSION NUMBER: 87168186 MEDLINE
 DOCUMENT NUMBER: 87168186
 TITLE: Gene conversion variations generate structurally distinct pilin **polypeptides** in *Neisseria gonorrhoeae*.
 AUTHOR: Swanson J; Robbins K; Barrera O; Koomey J M
 CONTRACT NUMBER: AI-10615 (NIAID)
 AI-19469 (NIAID)
 SOURCE: JOURNAL OF EXPERIMENTAL MEDICINE, (1987 Apr 1) 165 (4) 1016-25.
 Journal code: I2V. ISSN: 0022-1007.
 PUB. COUNTRY: United States
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals; Cancer Journals
 ENTRY MONTH: 198707
 AB Pilus+ to pilus- phenotype change occurs in *Neisseria gonorrhoeae* through gene conversion of the gonococcus' complete, expressed pilin gene by nucleotides homologous to the pilS1 copy 5 partial pilin
 Searcher : Shears 308-4994

gene; assembly missense pilin is synthesized but pili are not. Reversion to pilus+ occurs by a subsequent recombinational event that replaces the complete pilin gene's pilS1 copy 5-like sequence with nucleotides from a different partial gene to effect expression of an orthodox (i.e., pilus producing) pilin. Sibling pilus+ revertants of common parentage can carry different sequences in their expressed pilin genes because they have undergone nonidentical gene conversion events such as recombinations with sequences from different partial genes, or recombinations with different length nucleotide stretches of the same partial gene; either can yield structurally and antigenically variant pilin polypeptides.

L7 ANSWER 20 OF 24 BIOSIS COPYRIGHT 2000 BIOSIS
 ACCESSION NUMBER: 1986:234250 BIOSIS
 DOCUMENT NUMBER: BR30:116746
 TITLE: ISOLATION AND CHARACTERIZATION OF A FRAGMENT REQUIRED FOR AUTONOMOUS REPLICATION OF THE BETA LACTAMASE PLASMID PFA-3.
 AUTHOR(S): GILBRIDE K A; BRUNTON J L
 CORPORATE SOURCE: UNIV. TORONTO, TORONTO, ONTARIO.
 SOURCE: 86TH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR MICROBIOLOGY, WASHINGTON, D.C., USA, MAR. 23-28, 1986. ABSTR ANNU MEET AM SOC MICROBIOL, (1986) 86 (0), 155.
 CODEN: ASMACK. ISSN: 0094-8519.
 DOCUMENT TYPE: Conference
 FILE SEGMENT: BR; OLD
 LANGUAGE: English

L7 ANSWER 21 OF 24 MEDLINE DUPLICATE 12
 ACCESSION NUMBER: 86149857 MEDLINE
 DOCUMENT NUMBER: 86149857
 TITLE: **Polypeptides** encoded by cryptic plasmids from *Neisseria gonorrhoeae*.
 AUTHOR: Aalen R B; Gundersen W B
 SOURCE: PLASMID, (1985 Nov) 14 (3) 209-16.
 Journal code: P8P. ISSN: 0147-619X.
 PUB. COUNTRY: United States
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 198606

AB Almost all clinical isolates of *Neisseria gonorrhoeae* harbor a small, phenotypically cryptic plasmid of approximately 4.1 kb. In this study several polypeptides encoded by two variants of such plasmids, one (pSB01C) having a deletion of approximately 50 bp as compared to the other (p31788C), have been identified, and the position of the genes for two of the proteins determined. The cryptic plasmids were cloned into the HindIII site of the vectors

Searcher : Shears 308-4994

pBR322 and pACYC184. The resulting recombinant plasmids were transformed into the Escherichia coli minicell producing strain DS410 (minA, minB) and the plasmid-encoded proteins analyzed by sodium dodecyl sulfate-polyacrylamide gel electrophoresis. The pSB01C derivatives express two distinct proteins of 22 and 16 kDa and p31788C two other proteins of 24 and 18.5 kDa. Additionally, both plasmids express common proteins of 32.5, 9, and 7.5 kDa. The genes coding for the 24- and the 7.5 kDa proteins have been mapped by restriction enzyme analysis of Tn5 insertions suppressing the expression. The additional 50 bp in p31788C are localized to the coding region of the 24-kDa protein, and the 22-kDa protein of pSB01C is possibly a shortened form of the former due to the lacking 50 bp.

L7 ANSWER 22 OF 24 BIOSIS COPYRIGHT 2000 BIOSIS
 ACCESSION NUMBER: 1984:10780 BIOSIS
 DOCUMENT NUMBER: BR26:10780
 TITLE: IDENTIFICATION AND COMPARISON OF 3 NEISSERIAL IMMUNO GLOBULIN PROTEASES.
 AUTHOR(S): STAFFORD D C; MULKS M H; PLAUT A G
 CORPORATE SOURCE: DEPARTMENT OF MEDICINE, TUFTS-NEW ENGLAND MEDICAL CENTER, BOSTON MASS. 02111.
 SOURCE: 83RD ANNUAL MEETING OF THE AMERICAN SOCIETY FOR MICROBIOLOGY, NEW ORLEANS, LA., USA, MAR. 6-11, 1983. ABSTR ANNU MEET AM SOC MICROBIOL, (1983) 83 (0), B126.
 CODEN: ASMACK. ISSN: 0094-8519.
 DOCUMENT TYPE: Conference
 FILE SEGMENT: BR; OLD
 LANGUAGE: English

L7 ANSWER 23 OF 24 MEDLINE DUPLICATE 13
 ACCESSION NUMBER: 80020331 MEDLINE
 DOCUMENT NUMBER: 80020331
 TITLE: Antigenic subunit of the **polypeptide** antigenic complex of the Melvin strain of **Neisseria gonorrhoeae**.
 AUTHOR: Karkhanis Y D; Anderson R L; Zeltner J Y; Maigetter R Z; Carlo D J; Stoudt T H
 SOURCE: BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1979 Jul 27) 89 (2) 750-8.
 Journal code: 9Y8. ISSN: 0006-291X.
 PUB. COUNTRY: United States
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 198001

L7 ANSWER 24 OF 24 MEDLINE DUPLICATE 14
 Searcher : Shears 308-4994

09/388090

ACCESSION NUMBER: 80026436 MEDLINE
DOCUMENT NUMBER: 80026436
TITLE: Antigenic polypeptide complex from the
Melvin strain of *Neisseria*
gonorrhoeae: isolation and properties.
AUTHOR: Karkhanis Y D; Anderson R L; Zeltner J Y; Carlo D J;
Stoudt T H
SOURCE: INFECTION AND IMMUNITY, (1979 Aug) 25 (2) 635-44.
Journal code: GO7. ISSN: 0019-9567.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198002

claim 44

FILE 'CAPLUS' ENTERED AT 15:13:28 ON 18 APR 2000

L8 1 SEA ABB=ON PLU=ON (PTLZ OR P TLZ) (W)NGHTR? OR PTLZNGHTR
? OR P TLZNGHTR?

L9 0 SEA ABB=ON PLU=ON L8 NOT L5

FILE 'MEDLINE, BIOSIS, EMBASE, LIFESCI, WPIDS, CONFSCI, SCISEARCH,
JICST-EPLUS' ENTERED AT 15:14:20 ON 18 APR 2000

L10 0 SEA ABB=ON PLU=ON L8

FILE 'HOME' ENTERED AT 15:14:50 ON 18 APR 2000

Searcher : Shears 308-4994